Abstract for an Invited Paper for the APR07 Meeting of The American Physical Society

Education Outreach Programs - Thomas Jefferson National Accelerator Facility LISA SURLES-LAW, Jefferson Laboratory

Jefferson Lab has a strong record of helping DOE achieve its science education and workforce development goals. The Lab works with the local community to enhance the quality of K-12 STEM education in the public schools. Jefferson Lab serves the nation by providing an educational pipeline for the country's brightest students at the high school and undergraduate levels to help ensure that the next generation of scientists and engineers are capable of solving complex problems. The BEAMS (Becoming Enthusiastic About Math and Science) program, a national-model partnership with Newport News City Public Schools, supports inner-city students as they progress from the 6^{th} to the 8^{th} grades. The BEAMS program, unique to Jefferson Lab, has positively influenced math and science standardized test scores for participating schools, closing the scoring gap between traditionally low and average scoring schools. Jefferson Lab's High School Summer Honors Internship Program draws the region's highest achieving high school students. Jefferson Lab scientists transfer essential technical knowledge and enthusiasm for science to these young people at the critical time they begin to make career choices. Undergraduate students interested in STEM fields are selected from a competitive, nationwide pool to work with scientists and engineers on projects related to Jefferson Lab's research program. Each year, the Science Undergraduate Laboratory Internship program prepares fifteen students to pursue STEM careers of benefit to the nation. Jefferson Lab offers its Teacher Academy in Physical Science program to teachers each summer. This four-week program for upper elementary and middle school teachers offers advanced scientific content and teaching methods in math and science. JLab's unique research environment and expertise in science, math, and technology create the basis for extraordinary educational opportunities that are solidly grounded in the Laboratory's scientific programs. These "pipeline" education programs are essential for providing a knowledgeable citizenry and the next generation of scientists and engineers critical for the nation's success.